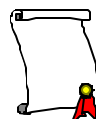


SMARA UPDATE



The Quarterly Newsletter of the Department of Conservation - Office of Mine Reclamation

Model Surety Bond Forms Will Soon be Available



As promised at last year's series of overview workshops, model forms for reclamation surety bonds will soon be available from the Office of Mine Reclamation. Consistent surety bond forms are required by Civil Code provisions, and must be adopted by the State Attorney General's office as regulation. Department staff developed draft forms early last year for initial review and comment by the attorney general, and following incorporation of suggested changes, made the first "public" draft available for review and comment last spring. Input received over the past several months

from agency planners and attorneys, the surety industry, and mining representatives helped staff learn about complex insurance requirements, and resulted in more legally sound forms.

The State Mining and Geology Board, which has facilitated the public review process on behalf of the department, adopted the latest draft version, with a few minor changes, at its January 15 meeting in Riverside. Following department consideration of the board's changes and consultation with the Bureau of Land Management and the U.S. Forest Service, the finalized forms will be forwarded to the attorney general which should occur in early April. It is anticipated the forms will be adopted into regulation and take effect soon thereafter.

While the requirement to use the new forms will be in effect immediately, we expect a phase-in period for existing bonds. The actual dates will be noticed in future issues of the *SMARA Update*, and will accompany the bond forms when distributed.

Update on 1997-98 "Focus" Workshops

The 1997-98 series of "focus" workshops is well underway. Three one-half day workshops focusing on SMARA's exemption provisions have already been held in Redding, Visalia and Anaheim.

A one and one-half day session on performing mine inspections and reviewing cost estimates is being planned for the Central Valley this spring. The program will include a morning "how-to" session and an afternoon field trip to perform a mock inspection, followed by a wrap-up the next morning to go over what was found in the field. The scenario will be very realistic because Santa Fe Aggregates, an active mining operation located along the Tuolumne River, has volunteered its site as the subject of study. Participation will be limited due to logistical difficulties, and it may not be possible to schedule a second session this fiscal year, thus early reservations are recommended. A flyer will be mailed to lead agency SMARA contacts as soon as details are available. Meanwhile, contact Andrew Rush at (916) 323-9198 for information.

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How to Speed Up Your Reclamation Plan Review



The **Reclamation Unit** reviews reclamation plans for compliance with the Surface Mining and Reclamation Act and implementing regulations. Review comments are used by lead agencies, mine operators and consultants in preparation and approval of the reclamation plan. Statute authorizes a **30-day review period** following receipt of the reclamation plan by the Department of Conservation.

Concern: Review of the plan seems to take longer than the applicant had hoped it would.

Fact: Reclamation plan reviews are normally completed well before the 30-day review period ends.

Can you facilitate review of your reclamation plan in a timely manner? Yes!

Here's how:

- Allow **adequate review time**. It is difficult to provide a thorough review of a reclamation plan if only a week or less is given for review.
- Plan an **early consultation** meeting at the proposed mine site. Involve the lead agency, regulatory agencies and Reclamation Unit staff. At a minimum, allow time for a **site visit** by Reclamation Unit

staff. Issues discussed during a site visit help to fine-tune the reclamation plan...and there are no surprises later. Another benefit: **comment letters** focus on site-specific issues.

- One picture is worth a thousand words. If a site visit cannot be made, **include photographs** of the mine site with the plan. Is the reclamation plan **complete** when it is submitted for review? SMARA § 2774(c) requires lead agencies to *certify that the plan is complete* before sending it for review.
- Are all **technical reports** such as slope stability analyses and biological assessments provided? **SMARA** lists the items that must be addressed in a reclamation plan. **Conditions of Approval** should not be used in lieu of necessary technical information.
- Be sure to include a **financial assurance cost estimate**.
- Will an **EIS/EIR** be prepared for the project? Much of the information needed for a reclamation plan may be included in the environmental document. **Reference and append** all pertinent information to the reclamation plan to make it a **"stand alone" document**.
- Get to know the **Reclamation Unit staff**. The unit is composed of trained professionals with **expertise** in revegetation,

hydrology, and geotechnical fields. Unit staff provide technical information that can be used in the reclamation plan.

*Mary Ann Showers,
Environmental Specialist*

Updated "SMARA" Now Available

Complimentary copies of the Surface Mining and Reclamation Act and Associated Regulations were mailed to SMARA lead agencies mid-March. Formerly referred to as Note 26, this handy reference copy has been revised to reflect regulatory changes taking effect during 1997. Additional copies may be obtained by calling the Office of Mine Reclamation at (916) 323-9198.

Also available from OMR are copies of the State Mining and Geology Board's Financial Assurance Guidelines and a Small Mine Reclamation Plan prototype.

*Anne Hazen,
Administrative Assistant*

MESSAGE FROM THE DIRECTOR



Larry

Goldzband

Recent events involving the Russian River in Sonoma County have set the stage for cooperative approaches to overall river management, as well as provided some fresh ideas on how to work with the economic and environmental issues surrounding instream mining.

The Russian River long has played an integral role in the development of Sonoma and Mendocino Counties' resources. The river has contributed greatly to the growth of the agricultural, logging and mining industries, and satisfies many recreational needs. Also, the river is home to the Endangered Species Act-listed coho salmon and steelhead. Strong competition for the river's resources has led to demands the river no longer can fully meet.

In November, State Resources Secretary Douglas Wheeler asked me to lead the state's efforts to establish a community-based process to reconcile the competing economic and environmental demands on the river and its watershed.

We hope to establish a process on the Russian River that could have application throughout the state for river and watershed management. This process would have a bottom-up approach, which is to say the state will support local efforts if the various local stakeholders can agree to work cooperatively toward a common goal.

Local stakeholders have been concerned that there was little coordination between the state and federal governments (specifically, the Army Corps of Engineers) regarding operations on the Russian River. The purpose of the November talks was to begin to bring some coordination to our efforts, and then in the final year of the Wilson Administration to reach consensus on a process for decision-making that works for everyone.

Among the more controversial aspects of any river management plan is the impact of instream mining operations. One of the important local stakeholders is Syar Industries, which has a vested right to mine gravel at a number of sites within the river. In the case of Syar Industries, its reclamation plan was modified by the State Mining and Geology Board to address concerns of many local stakeholders, as well as the counties and the Corps of Engineers.

Given Syar Industries' vested right to mine gravel in the Russian River, the issue really boiled down to balancing Syar's needs with those of the river's other stakeholders, including the salmon. I think the State Mining and Geology Board came up with a workable solution for handling this issue: creation of an unbiased scientific review committee. This independent body of river experts -- whose membership is selected by Sonoma County and paid for by the company -- will make real-time evaluations of how much gravel can be harvested from the river each year without damaging the river's dynamic balance.

The review committee will analyze river conditions, the location of gravel deposits and other dynamic factors to determine the appropriate amount and location of the harvest. Potentially, the scientific review committee could perform similar evaluations on other mined rivers in the county as well, thereby spreading the cost. A river system's natural replenishment does not always coincide with optimal market conditions. Ideally, the committee's work will balance the community's needs for recreation and aesthetics, protect the riparian environment, and serve the materials market.

As with the overall management process we're trying to develop, the concept of scientific review committees for mined rivers could have statewide application. While it is too early to predict the results of this approach, it is nonetheless important that the process has begun. The river management models we develop today will provide tomorrow's framework for more cooperative ways of addressing competing issues.

Utilizing Budget Set Asides and Pledges of Revenue

When government agency operators began providing financial assurance for their operations several years ago, they quickly found that the more traditional mechanisms (i.e., bonds and letters of credit) were very difficult, if not impossible to secure. Due to concerns over liability exposure and the "deep pockets" syndrome, most financial institutions refused to extend this type of service to government agencies.

As a result, the State Mining and Geology Board amended its Reclamation Regulations in 1994 to include two new forms of financial assurance for use by government agency operators: the budget set aside and the pledge of revenue. Use of these two forms of financial assurance has increased over the last year as more lead agencies became familiar with them and government agency operators complied with SMARA.

Just what are budget set asides and pledges of revenue? Simply put, a budget set aside is a specific fund or line item in an agency's budget that is set aside and carried through to succeeding annual budgets until the mine is reclaimed. On the other hand, a pledge of revenue commits specific, identified future revenue of the agency which must not have any other encumbrances. So far, the

pledge of revenue has been favored over the budget set aside because most agencies are able to pledge a portion of their gas tax revenue.

The actual document or mechanism by which a budget set aside or pledge of revenue is established is normally a resolution adopted by the governing body of the government agency operator responsible for reclaiming the mine site. The resolution must contain the following information: 1) The types and sources of specific funds or pledged revenue; 2) The period of time that each funding source or pledged revenue is to be available; 3) The calculation amount of the financial assurance prepared pursuant to SMARA; and 4) An authorization for the lead agency or the Department of Conservation to use the funds or proceeds of the pledged revenue to conduct and complete reclamation if the government agency operator is incapable of doing so. If any one of these items is left out of the resolution, the financial assurance will be returned to the lead agency as inadequate.

For a complete description of the requirements for a budget set aside or pledge of revenue you may refer to the California Code of Regulations, Title 14, Division 2, Chapter 8, Subchapter 1, Article 11, Section 3806.

*Andrew Rush,
Environmental Specialist*

Reclamation Tips



Acid Rock Drainage

Acid rock drainage is an important issue in hard-rock mining of metal minerals, including gold, silver, copper and nickel. Metal minerals are associated with reactive sulfide minerals, primarily iron disulfides. Iron disulfides include pyrites such as iron pyrite and copper pyrite, which are red to copper in color; marcasite, a pale-yellow to grey mineral; and pyrrhotite, a red-brown to bronze mineral, giving the deposit a characteristic rusty look.

Iron disulfides are oxidized when ore rock is exposed to the elements. This produces ferrous iron and acid conditions, and in turn, the ferrous iron is oxidized and produces ferric iron. Finally, the ferric iron is hydrolyzed and is precipitated, forming a red-brown and yellow sludge. The sludge has a neutral to high *pH*, which is a measure of acid as indicated by high hydrogen-ion activity.

The interesting thing is that the bacterium *Thiobacillus ferrooxidans* biologically catalyzes the acid-generating reactions. It is generally agreed that the bacteria may increase the initial acid production rate by several orders of magnitude.

Continued on page 6

Reclamation Tips

Executive Officer's Report

At its November 13, 1997 regularly scheduled business meeting in Sacramento, the State Mining and Geology Board took the following actions on these SMARA issues:

1. Adopted Resolution 97-09 certifying Kings County's revised surface mining and reclamation ordinance #558 as being in accordance with SMARA.
2. Adopted Resolution 97-10 certifying El Dorado County's revised surface mining and reclamation ordinance, Chapter 8.36 of the County Code, as being in accordance with SMARA. In March of 1997 the board had notified the county that its prior mining ordinance was deficient and required revision pursuant to PRC §2774.5.
3. Granted an exemption from SMARA pursuant to PRC §2714(f) of a scientific study by Plumas Corporation on Spanish Creek, Upper Feather River Watershed, in Plumas County, that employs an instream vortex sampler to measure the migration of riverbed gravel past a selected point in the river.
4. Approved the executive officer's recommendation to temporarily stay board enforcement actions against El Dorado County pending the resolution of several issues, one of which is a Superior Court action in a lawsuit against the county and a mine operator brought by the

Department of Conservation. The board determined to keep the administrative record open, and to reactivate its enforcement procedures should it determine the situation warrants.

(Note: see accompanying story)

5. Adopted its 1998 meeting schedule for regular board and committee meetings.
 6. Accepted the Supplemental Environmental Impact Report/ Environmental Impact Statement, and Statement of Overriding Concerns (Findings) for Syar Industries Inc.'s mining operations in the Middle Reach of the Russian River, Sonoma County.
 7. Adopted Resolution 97-11 approving the Reclamation Plan and Mitigation Monitoring Program for Syar Industries Inc.'s mining operations in the Middle Reach of the Russian River, Sonoma County.
 8. Accepted as final the Department of Conservation's Division of Mines and Geology Open File Report 97-16; Mineral Land Classification of a Part of Southwestern San Bernardino County; The Barstow-Newberry Springs Area, California.
- The board took the following actions regarding appeals of administrative penalties assessed by the department:
- A. Konocti Rock, Clearlake Lava, Inc., California Mine ID # 91-17-0017, Bill Van Pelt, Agent, Lake County -- affirmed the \$10,000 penalty as issued, but agreed to hold

in abeyance its imposition until November 12, 1998 to allow the abandoned surface mine site to be

Executive Officer's Report

substantially reclaimed. The board

Board Action Regarding Enforcement Proceedings in El Dorado County

At its regularly scheduled November 13, 1997 meeting, the board determined to stay its enforcement proceedings against El Dorado County pending the outcome of several issues. One issue is a lawsuit filed by the Department of Conservation against the county challenging the adequacy of the reclamation plan, financial assurances, and CEQA documents approved by the county for the Weber Creek Quarry. The following, excerpted from a letter from board staff to the county board of supervisors, describes the board's recent actions.

"On March 13, 1997 at its regular business meeting in Sacramento, the State Mining and Geology Board (SMGB) opened proceedings to investigate and review El Dorado

Board Action Regarding

Acid rock drainage gives off a strong odor and often will have a characteristic sulfurous smell.

The availability of water to facilitate the oxidation and hydrolization processes and leach through the rock exposed during mining should be considered in predicting acid rock drainage. A wet climate makes the production of leachate more problematic than a dry climate, thus different geographic areas in California may be more susceptible to acid rock drainage because of differences in rainfall and hydrology.

The control of acid rock drainage is generally dependant on two main factors. Limiting the surface area of reactive sulfide minerals subject to leaching is one factor. Waste rock tailings, for example, should be graded to minimize the infiltration of surface drainage. Resoiling and revegetation of the tailings may be challenging but is also effective.

The neutralization of acid rock drainage by adding carbonate minerals such as lime may control the oxidation rate. Addition of crushed limestone brings up the pH of the waste rock and lessens the rate of acid production. Limestone may be available locally in the vicinity of the mine, depending on the geology of the area.

For more on acid rock drainage, refer to:

Hutchinson, Ian P.G. and Ellison, Richard D., 1991, Mine Waste

Management: A Resource for Mining Industry Professionals, Regulators, and Consulting Engineers, Lewis Publishers, Inc. (Note: This publication is sponsored by the California Mining Association.)

Enforcement Proceedings in El Dorado County

County's (County) performance in administering the Surface Mining and Reclamation Act, specifically as to the County's alleged failures to enforce SMARA with regard to the Weber Creek Quarry. The SMGB held a special meeting in Placerville on August 14, 1997 and received public and County comments as to the disposition of the County's lead agency performance in enforcing SMARA.

"Based on information obtained by the SMGB during its investigative proceedings and at several public meetings, the SMGB determined at its November 13, 1997 regular business meeting to do the following:

"Stay its proceedings pursuant to PRC § 2774.4 to act on assumption of the County's SMARA lead agency authority with the following stipulations:

"(a) the SMGB will review and reconsider its determination to stay its actions pursuant to PRC § 2774.4 during its November, 1998 regular business meeting; at that meeting the SMGB will take into

consideration the County's performance as a SMARA lead agency over the previous year's time; this date was selected so as to be in harmony with the County's one-year schedule for making a final determination on approval of the Weber Creek Quarry reclamation plan and financial assurances;

"(b) the SMGB may reactivate its proceedings at any time prior to its November 1998 meeting if it determines that circumstances warrant, and may issue a second 45-day notice to hold hearings;

"(c) the SMGB's Executive Officer shall provide the SMGB with regular status reports, at least on a quarterly basis, on the County's SMARA compliance activities;

"(d) the stay of proceedings does not close the administrative record.

"The SMGB's action to temporarily stay its proceedings is made as a good faith gesture that recognizes the County's forward momentum during the past several months to bring its surface mining operations into compliance with SMARA. The SMGB specifically noted, however, that its action is not be construed as a comment on the adequacy of the reclamation plan and financial assurances currently in place for the Weber Creek Quarry."

*John G. Parrish, Ph.D.
Executive Officer*

Enforcement Update

In the past few issues of the "SMARA Update," we have discussed various aspects of DOC's SMARA enforcement program. To date, the program has been a real success, with a substantial number of formerly illegal operations completing reclamation plans and financial assurances. This is due in no small part to the encouragement, assistance where necessary, and firmness shown by lead agencies.

As part of this process, DOC has assessed a number of penalties for failure to complete annual mine reports. While under statute, the enforcement responsibility for annual mine reports is given to lead agencies, as a practical matter it would be very difficult for local governments to enforce. In the past, lead agency SMARA staff have received our "15-day letters," which, under SMARA, we are required to send before initiating DOC enforcement. On the advice of the attorney general, we are going to start sending 15-day letters out for reporting violations, as well as for on-the-ground violations.

We understand enforcing this provision of law is a challenge for lead agencies, since they don't really know if a document has been sent to DOC. However, any efforts in this regard made by lead agencies will be appreciated. Otherwise, it will be business as usual, with DOC

enforcing the reporting provisions of SMARA. But, lead agencies will begin to receive those "15-day letters."

*Dennis J. O'Bryant,
Assistant Director*

Compliance Corner

As you may be aware, in 1997 the State Mining and Geology Board adopted new regulatory language regarding exemptions for flood control facilities and agricultural activities. The text of these regulations can be found in the April-June 1997 edition of SMARA Update. Additionally, they will be included in the updated version of SMARA and associated regulations which was distributed in March. Activities exempt from SMARA are detailed in Section 2714 (a) through (k) of the Public Resources Code, Division 2, Chapter 9, and in Section 3505(a) of the California Code of Regulation, Title 14, Division 2, Chapter 8, Subchapter 1.

OMR's 1998 enforcement efforts will focus on the correct application of the exemption language in SMARA. This office, along with the mining industry, is concerned with creating and maintaining a level playing field for all mine operators. Operators in compliance with SMARA have voiced their strong concern over the

unfair competition that results from non-compliant operators who generate similar products as their own. In many cases, we have found that non-complying operators have misinterpreted existing exemption language and convinced their lead agency that they are not subject to the Act. The Board's new regulations should help lead agencies and OMR better define exempt activities, especially as they relate to agriculture.

Beginning in January, OMR has been notifying non-compliant operators and their associated lead agencies regarding SMARA compliance. Operators are being given 30-days to file a report with OMR and initiate permit, reclamation plan and financial assurance approval processes with their lead agency. Failure to comply with this notice may result in this office issuing administrative penalties and/or closure orders.

If you have questions regarding SMARA's applicability to any activity, please contact the Reporting and Compliance Unit at (916) 323-9198.

*Tim Kustic,
Principal Compliance Engineer*

will review the administrative penalty and the degree and quality of reclamation of the mine site at its November 12, 1998 meeting. At that time, the board will make a final determination as to the disposition of the penalty based on the reclamation of the site.

B. Silver Property, E. L. Yeager Construction Company, Inc., California Mine ID # 91-13-0026, Mark Yeager, Agent, Imperial County -- modified the original \$5,000 penalty as issued by the department to \$25,000 for failure to file an initial mining operation report and reporting fee. In addition, the operator did not provide a schedule

for completing a reclamation plan and financial assurance compliance.

*John G. Parrish, Ph.D.
Executive Officer*

The *SMARA Update* is a quarterly publication of the Department of Conservation's Office of Mine Reclamation, 801 K Street, MS 09-06, Sacramento, California 95814, (916) 323-9198, <http://www.consrv.ca.gov/omr/index.html>. The purpose of this publication will be that of imparting the latest in reclamation tips, as well as changes in legislation or interpretation of existing statutes by court decisions.

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